(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 17 July 2003 (17.07.2003)

(10) International Publication Number WO 03/058735 A2

(51) International Patent Classification7: 4/86, 8/10, C25B 11/04, 9/10

H01M 4/90,

(21) International Application Number: PCT/GB03/00013

(22) International Filing Date: 6 January 2003 (06.01.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0200253.3

8 January 2002 (08.01.2002)

(71) Applicant (for all designated States except US): JOHN-SON MATTHEY PUBLIC LIMITED COMPANY [GB/GB]; 2-4 Cockspur Street, Trafalgar Square, London SW1Y 5BQ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BUCHE, Silvain [FR/GB]; 8 Dumbarton Way, Caversham Park Village, Reading RG4 6QT (GB). HOGARTH, Karen, Leanne [GB/GB]; 45 Churchill Crescent, Sonning Common, Reading RG4 9RU (GB). GASCOYNE, John, Malcolm [GB/GB]; Lyduska, Routs Green, Bledlow Ridge, High Wycombe HP14 4BB (GB). RALPH, Thomas, Robertson [GB/GB]; 94 Shaftesbury Road, Reading RG30 2QJ (GB).

(74) Agent: WISHART, Ian, Carmichael; Johnson Matthey Technology Centre, Blounts Court, Sonning Common, Reading RG4 9NH (GB).

(81) Designated States (national): CA, JP, US.

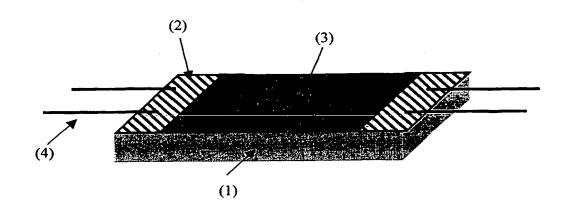
(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELECTROCATALYST INK



(57) Abstract: An electrocatalyst ink comprising one or more electrocatalyst metals and one or more proton-conducting polymers, characterised in that the electrocatalyst ink further comprises particulate graphite which is present at a loading of 1 to 40 weight % with respect to the weight of the electrocatalyst, and a process for the preparation of said ink is disclosed. The use of the ink in a gas diffusion electrode, particularly for use in PEM fuel cells is also disclessed. E CO